Prevention of Sports Injuries
Running

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PERSONAL FITNESS:

- Prior to running, participate in a gradual conditioning program with emphasis on balancing out the strength of musculature (correct muscle imbalance). A program consisting of muscular fitness, gradual aerobic conditioning (see training / technique section), and stretching pre/post running is beneficial.
- To reduce risk of stress fractures, a slow and progressive training program that gradually increases strength and endurance of the back and lower extremities is recommended.
- Remember to warm-up and stretch at least 5 – 10 minutes before running.
- Contact a local MWR Trainer for additional information on running conditioning and correct running form. Many MWR Facilities provide safety/injury prevention information regarding preparation, conditioning, and training proper running techniques; imperfections in running style can lead to injury.

EQUIPMENT:

- Proper fitting running shoes are important; replace shoes every 6 months old .
- Orthotics may be beneficial for runners with excessive pronation.

TRAINING / TECHNIQUE:

- Correct training errors. Training should be gradually increased. For beginning runners, alternate day running is recommended. The runner should be able to talk without being short of breath. Monitor both the intensity and the duration of work-outs. Excessive distances, hill running, and speed work may cause common overuse injuries such as iliotibial band friction syndrome and shin splints. A general guideline is to increase running mileage by 10% per week. Monitor the number of days of high intensity workouts and the increase in the training programs. Alternate high effort days with low intensity days of running.
- NOTE: The body responds to excessive stress placed upon it. Even if an experienced runner attempts to increase mileage in a short time, injury may result.
- Discontinue training hard if tired. Prevent running through pain. If it takes more than 48 hours to recover, the workouts may be too long or intense.
- If racing, don't try to make up for lost miles.
- Don't increase mileage more than 10% a year.

ENVIRONMENT:

- Soft and flat running surfaces are recommended; avoid excessive running on cement or asphalt. Uneven ground or slanted roads should be run with caution. .Running on slanted surfaces are responsible for increased injury rates.
- Wear clothing appropriate for weather. For cold weather, dress in layers, cover both head and hands.
  For hot weather, wear porous clothing. Heat acclimatization usually takes about 2 weeks.
- ACSM recommends that runs/races greater than 10 miles should not be run in temperatures over 82.4 degrees. If the temperature exceeds this, the run should be performed before 0900 or after 1600.
- Alcohol consumption should be discouraged during any athletic participation – especially running.
- Proper hydration during pre-activity and actual activity participation is recommended to prevent fatigue and heat illness. Runners should be trained to recognize early signs of heat injury.
- To run at higher altitudes, allow 3-4 weeks to acclimatize to avoid hypoxia during acute exposure.

REFERENCE: Caine, J., Caine, C., and Lindner, K. Epidemiology of Sports Injuries.. Human Kinetics Publishers, Inc., 1996.